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AUTHOR Tanner, Joey
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ABSTRACT

Originally designed for gifted students, these reproducible archeology units emphasize the use of higher order thinking skills and are appropriate for use in any classroom. Interdisciplinary in content, the units provide a broad view of archaeology. Included are two complete units, one created for the upper elementary gifted student and the other for the lower elementary gifted student. Suggestions for adapting the materials to fit other classrooms are included. Several learning modalities are designed into the materials to encourage active student participation. (CW)

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ARCHAEOLOGY

A SELF-DIRECTED LEARNING EXPERIENCE
Interdisciplinary – Product Oriented
Grades K – 8

SE 051 159

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Zephyr Learning Packet

ARCHAEOLOGY

A self-directed study routing the student through geologic history and important archaeological finds. Develops RESEARCH SKILLS and THINKING ABILITIES.

Reproducible Units Grades K–3 and 4–8

ARCHAEOLOGY:

by Joey Tanner

Self-Directed Study Units for grades K-3 and 4-8, gifted

easily adapted for regular classroom use

Interdisciplinary and
Product Oriented
through the use of:

- Evaluating
- Classifying
- Comparing
- Imagining
- Researching
- Mapping & Charting
- Creating
- Reporting
- Thinking...Reacting
- Career Exploration

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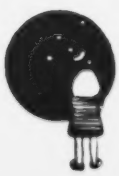

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CONTENTS

The Premise vii

A Word to the Teacher ix

1. Rationale for Self-Directed Learning 1
2. The Format 4
3. Suggested Readings 5
4. The Interest Development Center 7
5. Getting Started 9
6. The Unit: **ARCHAEOLOGY**

UNIT I: KINDERGARTEN THROUGH THIRD GRADES 11

SUGGESTIONS FOR ADAPTING THE UNIT 29

UNIT II: GRADES FOUR THROUGH EIGHT 31

BIBLIOGRAPHY 65

7. Exploring The Arts 67

THE PREMISE

CHILDREN ARE ACTIVE PARTICIPANTS IN THEIR LEARNING, NOT PASSIVE VESSELS TO BE FILLED. THEY ARE ALWAYS SEEKING AND CHOOSING WHAT THEY WILL LEARN AND WHAT THEY WILL NOT LEARN. THEIR ACTIVE INVOLVEMENT IS CRUCIAL TO LEARNING. CHILDREN TEND TO BECOME PERSONALLY INVOLVED IN PROJECTS THAT APPEAL TO A VARIETY OF MODALITIES . . . READING, WRITING, BUILDING, CREATING, IMAGINING, AND REAL THINKING . . . SO A VARIETY OF EACH IS INCLUDED IN THIS SELF—DIRECTED LEARNING UNIT.

A WORD TO THE TEACHER

ARCHAEOLOGY

Archaeology, still a young study, is a combination of science, detective work, and infinite patience. It is a careful and knowledgeable fitting together of the fascinating puzzle of human history on our planet.

The interest in piecing together this puzzle is centuries old, and many cultures have contributed to the knowledge we have of who and what came before us. In 500 B.C., King Nabonidus of Babylon restored the 1,500-year-old Ziggurat of Ur. During the Renaissance years, the old statues of Greece and Rome were saved. These collections formed the beginnings of the British Museum in London and the Louvre in Paris. Napoleon and his archaeological experts collected relics that found their way to the Egyptian Institute in Cairo. From time to time, careful notes had been taken, correct and incorrect assumptions were made . . . gradually what began as a curiosity, developed into a careful method of exploration into the often fragile remains of the past.

Today, the study continues. The science has become almost an art. Specialists of all kinds are needed on a full-scale archaeological dig. As recently as 1978, 7500 life-size pottery figures, dated from 210 B.C. were unearthed in China. The excavation of the 2,000-year-old Pompeii continues today. "The archaeologist," said Sir Mortimer Wheeler, "is not digging up ***things***, he is digging up ***people***." People whose lives may parallel our own in some ways . . . . and whose cultures may give us insight into better directions for our own.

"ONE CAN LEARN THE CAMPAIGNS OF THE CIVIL WAR WITH DATES, BATTLES AND CHARACTERS WITHOUT LEARNING ANYTHING ABOUT WHY WARS ARE FOUGHT BETWEEN FRIENDS OR WHAT IDEAS CAN BE GENERALIZED TO OTHER CONFLICT SITUATIONS."

James Gallagher,
Teaching the Gifted Child, 1974

RATIONALE FOR SELF-DIRECTED LEARNING

Our children's education must be more than the memorization of capitols of the states, the products of countries and the dates and places of past wars. Most teachers and parents would agree that what is also wanted is for children to learn to think for themselves, to organize their own time, to make wise choices, to work independently and to thoughtfully evaluate the results of their study.

OBSTACLES TO INDEPENDENT LEARNING

In spite of the teacher's best efforts, many, if not most, classroom settings are organized in such a way that students are involved in schedules and organizational plans that foster dependence rather than the independence we prefer. Students are told what is to be learned, how long it will take them to learn it, the resources are defined by the teacher and, afterwards, the teacher rather than the student decides whether the learning experience was a satisfactory and valuable one.

A LEARNING ATMOSPHERE

Each time we, as educators, focus on what our objectives are, we need to take a fresh look at our classroom mode of operation and evaluate the effectiveness of the way we teach. Quite naturally, for most of us, our teaching style has more to do with how we were taught than with what recent research has shown about the learning process. Even our good instincts have been overcome by the years of conditioning we have known in our own educational experiences.

Like a breath of fresh air, the recent findings coming from the research on the brain and how it operates are supporting our intuitive knowledge. This research is showing that our brains are receptive to learning only under certain conditions. Our job is to translate that information into a classroom atmosphere that provides:

- challenge
- freedom within structure
- trust and warmth
- opportunities to experience success
- personal involvement in the curricula

A natural transition generally occurs that transforms the former "teacher-lecturer" into a "fellow-learner". As a "fellow-learner" the teacher's role becomes one of a resource person, a facilitator and a classroom manager. In this maturing atmosphere, students gradually come to see themselves as responsible for their own learning and a foundation for self-direction is set.

* * *

At this point, a sometimes unexpected problem arises. We find the student no more ready for their independent learning than we, as teachers, were ready to allow it. This common occurrence is mentioned repeatedly in the literature dealing with programming for the gifted, an area where independent study and research are recommended as a major curricular activity (see **Suggested Reading List:** Maker (1982), Doherty & Evans (1980), and Feldhusen and Treffinger (1980).

FROM PASSIVE LEARNER TO ACTIVE PARTICIPANT (BRIDGING THE GAP)

The **ZEPHYR** self-directed study unit was developed expressly to bridge that gap . . . to transport the student from the position of passive recipient to that of an active participant in his/her own pursuit of knowledge.

Within the defined structure of each unit, the students are given opportunities to:

- make choices
- learn at their own pace
- learn in a manner more closely suited to their own learning style
- expand research skills
- use a variety of modalities
- plan their own time
- develop the skills of creative, critical and evaluative thinking
- experience whole-brain learning

Since responsibility for directing their own learning is so often an unfamiliar situation, the students will need your encouragement at the start. Generally, within six to nine weeks, most students will be well on their way from teacher dependence to self-motivation. (Beginning the venture with only a few choices, then gradually arranging the setting so that there are more and more choices, works best.) As students assume more responsibility, many teachers begin to consider the school library as just another part of the classroom . . . the benefits are many . . . from gaining a personal relationship with the librarian to learning about the enormous resources available, but often unused, in most school libraries.

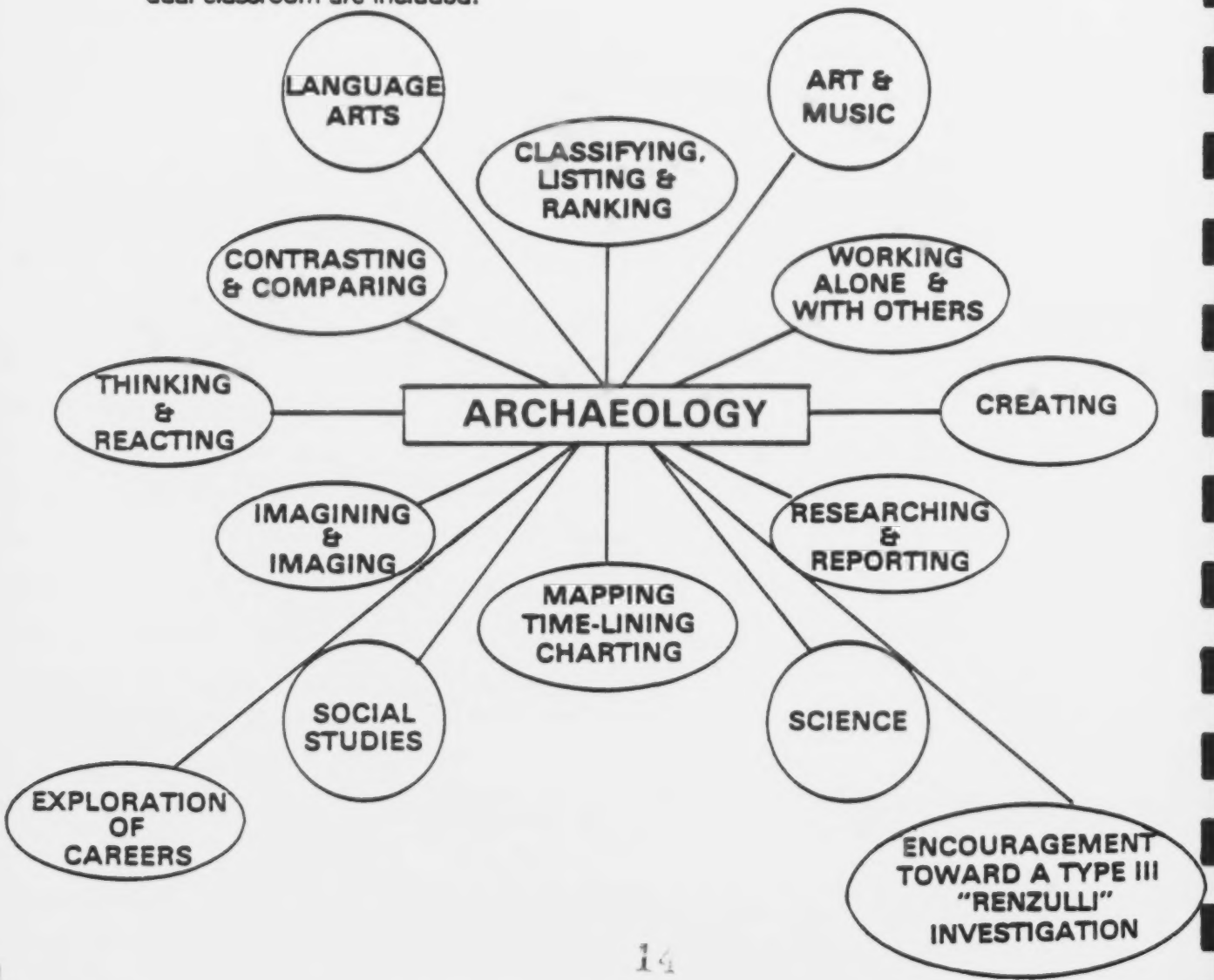
Eventually, a few students will be ready for a true investigative research study of professional quality as suggested by Joseph Renzulli in **The Enrichment Triad Model, A Guide for Developing Programs for the Gifted and Talented**, 1977.

THE FORMAT

Originally developed for the gifted student, these units emphasize the use of the higher level thinking skills . . . and are appropriate for use in any classroom where the goal is to encourage students to become responsible for their own education.

Interdisciplinary in content, the unit envelopes a broad view of the topic by integrating the "basics" into each activity.

Within this book are two complete units, one created for the upper elementary gifted student and the other for the lower elementary gifted student. Suggestions for adaptations for adjusting either of the levels to fit any individual classroom are included.



SUGGESTED READINGS

SELF-DIRECTED STUDY

"Bells, Groups and Independent Study", **Psychology and Education of the Gifted.** Barbe, W. and Renzulli, J. New York, 1975. Irvington Publishers.

Creative Questioning and Sensitive Listening Techniques. Carin, A. and Sund, R. Columbus, Ohio, 1978. Charles Merrill Publishing Company.

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Enrichment Triad Model: A Guide for Developing Defensible Programs for the Gifted and Talented. Renzulli, J. Mansfield, Connecticut, 1977. Creative Learning Press.

Growing Up Gifted. Clark, B. Columbus, Ohio, 1978. Charles Merrill Publishing Company.

Inviting School Success, A Self Concept Approach to Teaching and Learning. Purkey, W.W.. Belmont, California, 1978. Wadsworth Publishing Company, Inc.

Open to Change: Options for Teaching Self-Directed Learners. Malehorn, H. Palo Alto, California, 1978. Scott Foresman Company.

Self Starter Kit for Independent Learning. Doherty and Evans. Austin, Texas, 1980. Special Education Associates.

Teaching the Gifted Child. Gallagher, J. Boston, Massachusetts, 1975. Allyn and Bacon.

INTEREST DEVELOPMENT CENTER

ARCHAEOLOGY

THE PURPOSE OF THE INTEREST DEVELOPMENT CENTER IS TO STIMULATE INTEREST IN THE TOPIC AREA. THE STUDENT NEEDS TIME FOR BROWSING AND INVESTIGATION FOR MAXIMUM BENEFIT.

(Beginning ideas . . . . . you and your students will think of more . . . . . let parents and other teachers know about the Center and it will many times grow without effort.)

BOOKS, FILMSTRIPS, POSTERS OF:

- METHODS OF DATING
  - i.e. Carbon 14, Dendrochronology
- EARLY TOOLS
- THE GREAT WALL OF CHINA
- ARTIFACTS OF ANCIENT CULTURES
- FAMOUS RUINS...and ruins in your community
- ARCHAEOLOGICAL DIGS
- TOOLS OF THE ARCHAEOLOGIST
- BIOGRAPHIES OF ARCHAEOLOGISTS
- RELIGIONS OF ANCIENT CIVILIZATIONS
- MYTHS AND LEGENDS
  - i.e. Lost Cities, Machu Picchu, Stonehenge
- PALEONTOLOGY
- GEOLOGY
- GRAFITTI
- HIEROGLYPHICS
- VOLCANOES
- PYRAMIDS
- THE ROSETTA STONE

FOSSILS, real or replicas

SLICE OF A TREE

MAPS, GLOBES

ARCHAEOLOGICAL TOOLS

POTTERY SHARDS

ARTIFACTS OF ANCIENT CIVILIZATIONS (replicas are fine!)

ARCHAEOLOGICAL JOURNALS

COPIES OF NATIONAL GEOGRAPHIC

COPIES OF EARTHWATCH PUBLICATIONS

PAMPHLETS, INFORMATION FROM THE ARCHAEOLOGY DEPARTMENT OF YOUR LOCAL UNIVERSITY

NEWS CLIPPINGS OR MAGAZINE ARTICLES TELLING OF RECENT FINDS

I HEAR ..... AND I FORGET
I SEE ..... AND I REMEMBER
I DO ..... AND I UNDERSTAND
(source unknown)

GETTING STARTED

1. **Select a topic** as an extension of a regular curricular subject (particularly when your class seems to crave more) . . . or . . . select a topic to pursue that is of particular interest and may not be part of the curricula. To **zero in on special interests**, administer an interest survey to each student.

2. **Copy the unit for each student.** When using these units for the entire class you may want to expand or delete activities for individual students.

3. **Set up a center** in the classroom **that encourages exploration** in the subject field. You'll want to in-include a wide variety of materials. **Be creative,** the purpose of the center is to **excite the student in this subject area** so begin with **lots of "hands on" materials . . . . allow for ample browsing time** and **encourage the student to investigate** and become absorbed . . . . **at the level of a true professional.**

4. With the students, **go over each activity** in the unit, discussing and answering any questions. The **teacher is an integral key** in successful implementation. Because most children are already well-versed in the **"One Right Answer Game"**, they will need encouragement to branch out into many of the open-ended activities in the packets.

5. **Set the stage** . . . plan to **conference as needed** . . . . **provide resources as needed** . . . . then **get out of the way** and let your students learn.

6. **Give as much time** as each student needs to complete each activity in the unit. The entire packet might take from five to ten weeks or longer.

7. As each activity is completed and evaluated, **initial the symbol** located near each activity number. You will want to **evaluate** on the basis of what response is appropriate for **that student.**

8. When a student shows an extreme interest in the topic, the completion of this unit might be only the beginning. This student may well be ready for further study and research and **needs** only the **resources, guidance and freedom** to pursue his/her well-planned project.

In preparation for further research, the student will need to decide:

WHAT WILL THE STUDY BE? (what will be investigated and produced)

WHERE WILL BACKGROUND INFORMATION BE FOUND? (i.e., speakers, interviews, books, films, microfiche, documents, etc.)

WHAT, EXACTLY, WILL BE THE FORM OF THE PRODUCT? (a model, a manuscript, or . . .)

WHO MIGHT BE INTERESTED IN THE PRODUCT? (professionals in the field, publishers, organizations, etc.)

WHAT IS NEEDED TO BEGIN? (specific plans, resources, deadlines . .)

AGAIN . . . STEP BACK . . . PROVIDE GUIDANCE . . .
and LET HIM/HER GO!

ARCHAEOLOGY

UNIT I

NAME _____

DATE _____

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1. RESEARCH & REPORT

- **Research** the Big-Stone People of Ancient Peru.

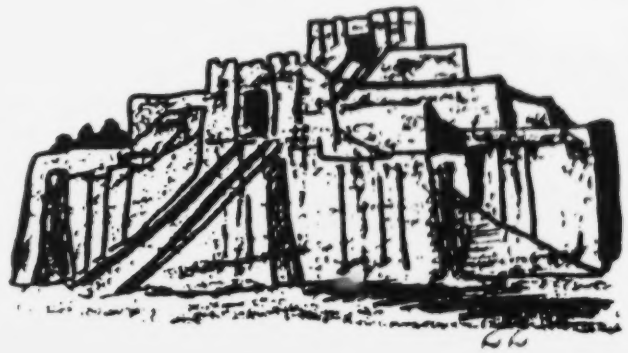
- **Find out** what you can about the Valley of the Kings.

- **Find out** about the Sumerians of Ur.

- **Learn about** the Rosetta Stone.

Show what you learned about one of these in a

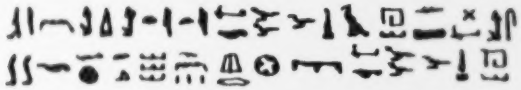
- ☐ Chart
- ☐ Mural
- ☐ Booklet



2. MAPS

Find a map of the world.

Locate these archaeological sites.



- ☐ Big-Stone People
- ☐ Sumerians of Ur
- ☐ Rosetta Stone
- ☐ Valley of the Kings

(Get help if you need it!)

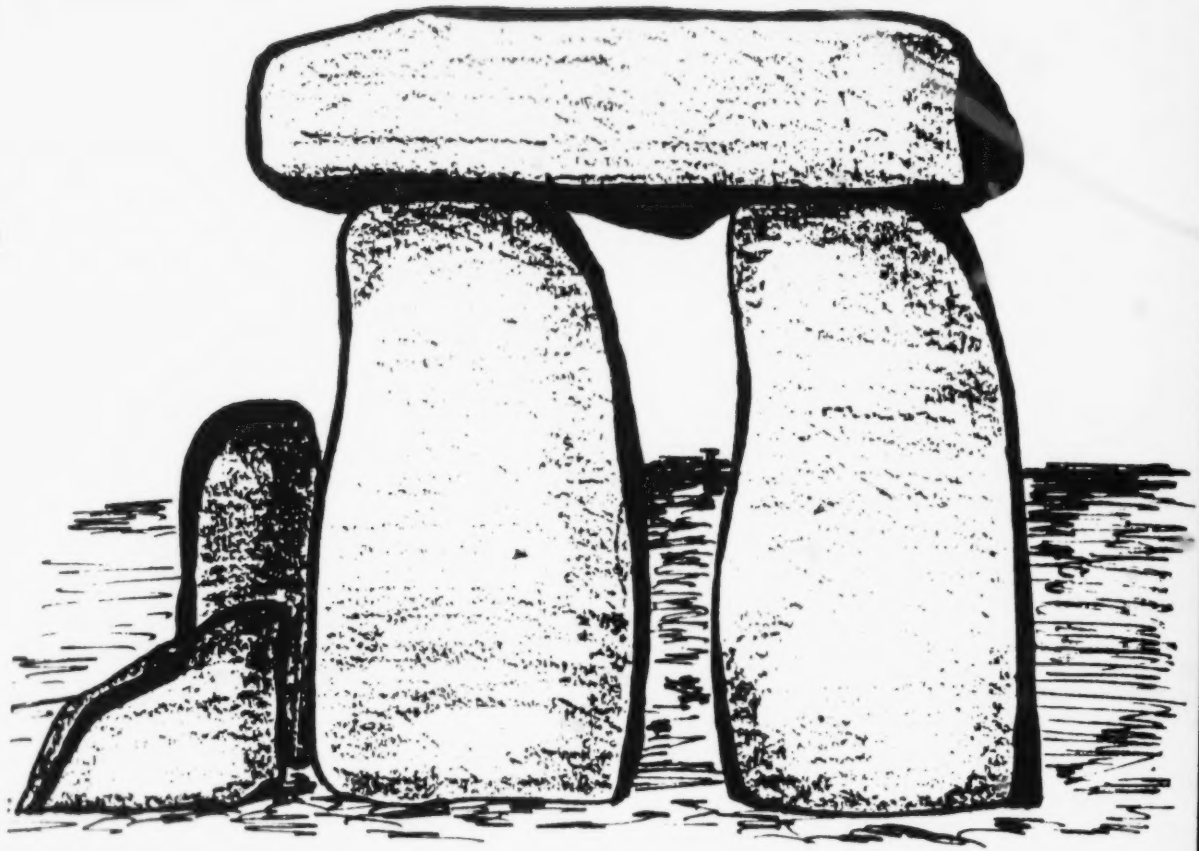
3. STONEHENGE

- **Find out** what you can about Stonehenge.

- **Locate** the Stonehenge site on your map.

- Get a board or heavy piece of cardboard. **Make** clay or papier mache copies of Stonehenge.

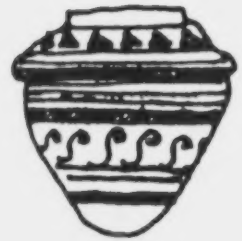
- **Write** what you know about Stonehenge to display with your work.



4. METHODS OF DATING

When archaeologists find something old,
everyone wants to know . . .

HOW OLD IS IT?



- The "Carbon 14" method is a good way to date an object. Find out all you can about **"Carbon 14".**

- Then find out about **"dendrochronology".** "Dendrochronology" is another method of dating.

- **Think about** the two methods. Which would be easier?

5. IMAGINE -

Imagine that you are outdoors playing. Suddenly you notice something sticking out of the ground... something hard and shiny. You begin to uncover it and realize that you have found something rare and precious. Archaeologists come to talk to you...you are interviewed on T.V....your story is in the news.

Imagine the thoughts and ideas you had before the find.

Then imagine the thoughts and ideas you had during the find.

And then —
Imagine the thoughts and ideas you had afterwards.

Make a long strip of paper by taping six pieces of drawing paper together. Then draw six pictures showing each thing that happened from the beginning of your expedition to the end. **Label** each picture.

6. ART~CRAFTS~BUILDING

— Choose One or More —

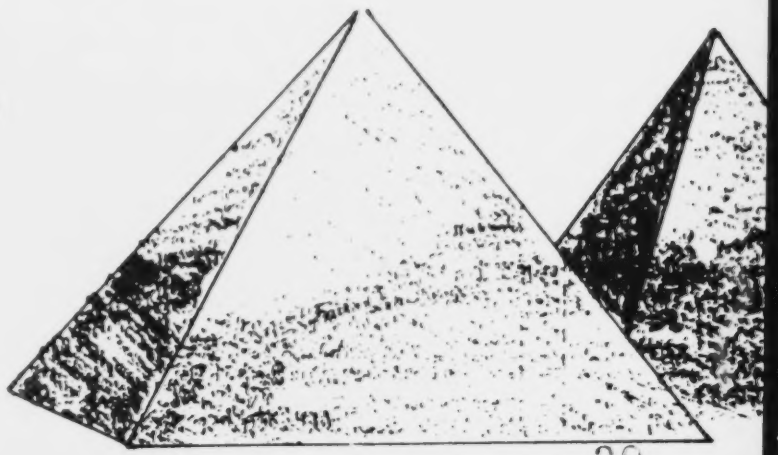
• **Find** pictures of pottery from an archaeological dig. Build some pottery of clay. Try to make it look just like one in the picture.

• **Find out** about the tools an archaeologist uses. Make a chart showing the tools. Label each one.

• **Find out** about pyramids.
In what country are they?

Make a model of a pyramid with clay or papier mache.

Label it with the date and country.



1. GRAPH YOUR RESULTS

List at least 5 well-known archaeological sites.

Ask at least 10 people this question . . . .

"WHAT DO YOU KNOW ABOUT . . ."

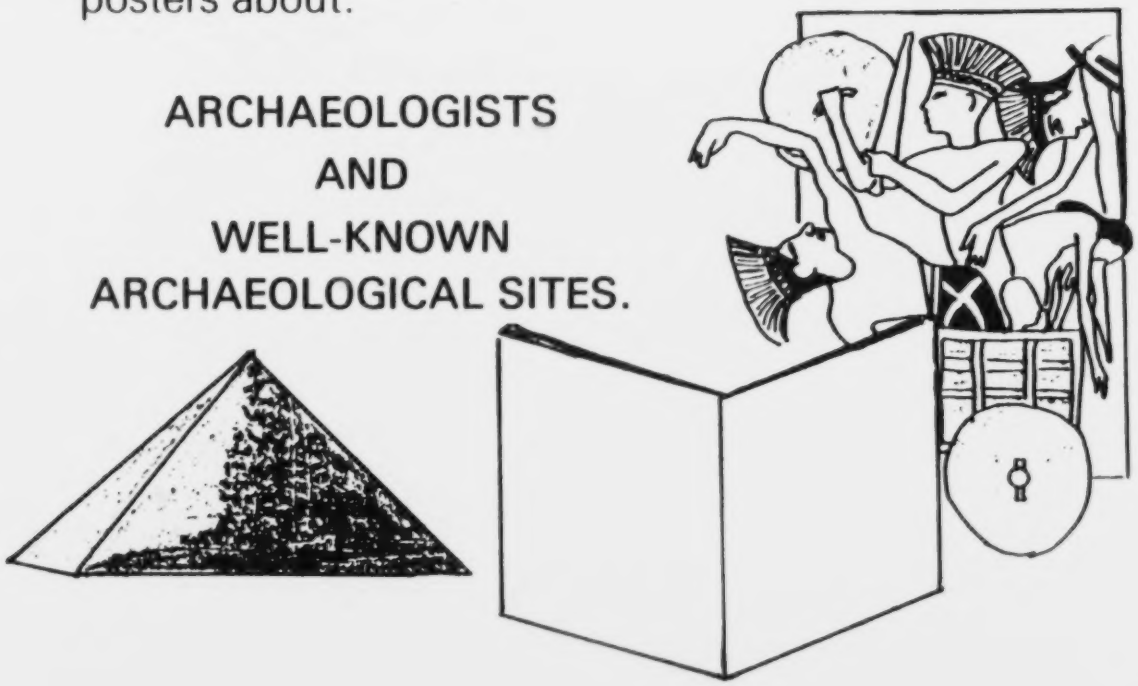
Ask some questions to find out how much the people know. Then, record the results of your survey on the chart below.

ARCHAEOLOGICAL SITE	NOTHING AT ALL	A LITTLE BIT	A LOT

8. INTEREST OTHERS

Find books, filmstrips and posters about:

ARCHAEOLOGISTS
AND
WELL-KNOWN
ARCHAEOLOGICAL SITES.



Display these with the items you have made.

Invite someone to tell your class about archaeology. (Sometimes a parent or a teacher or a person from the university in your city can do that.)

SUGGESTIONS FOR ADAPTING THE UNIT TO YOUR PARTICULAR TEACHING-LEARNING SITUATION

1. Require fewer, or more, research sources.

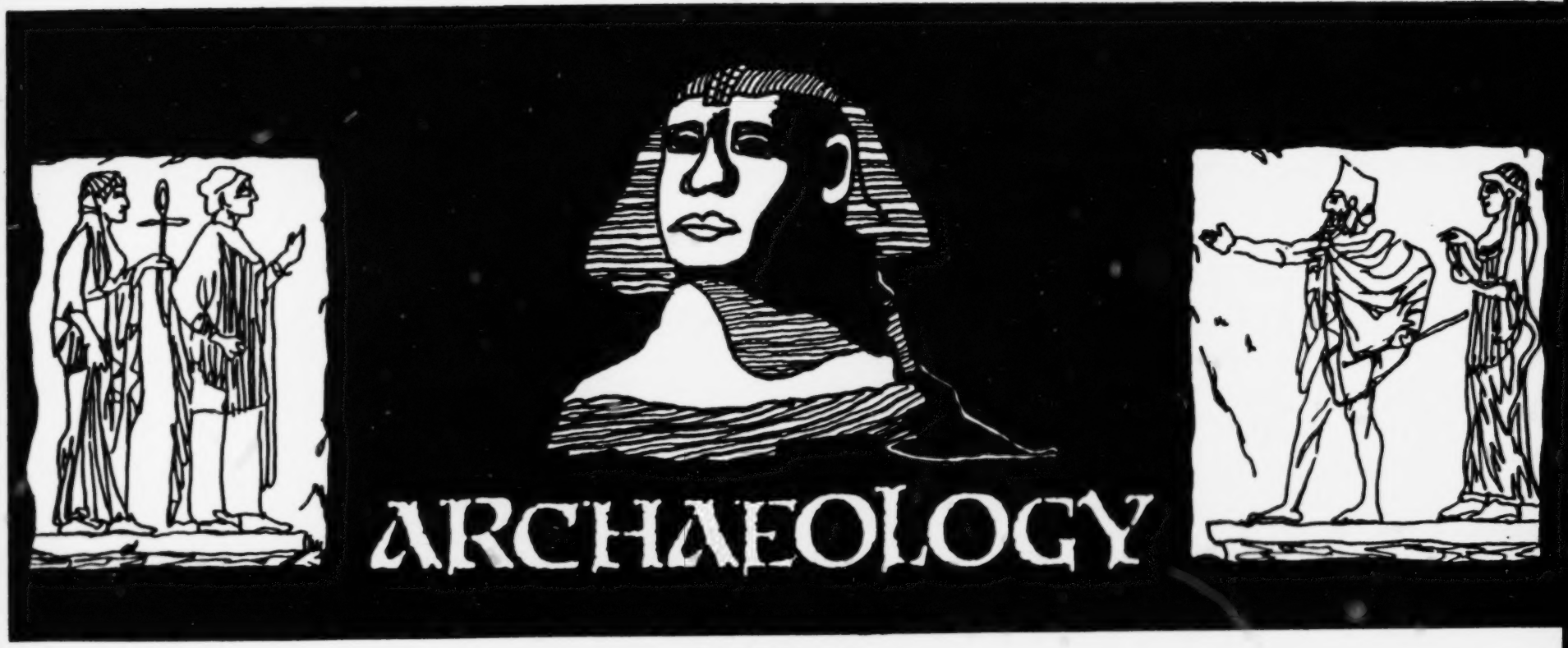
2. Assign more of the activities to small groups instead of to individual students.

3. Give fewer or more choices.

4. Delete some activities altogether.

5. Arrange the unit to be a class project with students choosing different parts to complete.

6. Add some activities of your own.



UNIT II

NAME _____

DATE _____

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1. RESEARCH & REPORT

— Choose One and Report in a "News" Article —

- **Research** the Big-Stone People of Ancient Peru. Speculate about their building methods... How were the blocks cut? How were they lifted?
- **Find out** what you can about the Valley of the Kings.
- **Learn about** the Rosetta Stone. What mystery was solved as a result of this finding?
- **What** U.S. President made an archaeological discovery in Virginia? What are the details of the discovery?
- **Find out** about the Sumerians of Ur. What contributions were made by this culture toward modern civilzation?

- **Research** photography's use in archaeological discoveries.

- **Research** the divisions of archaeology:

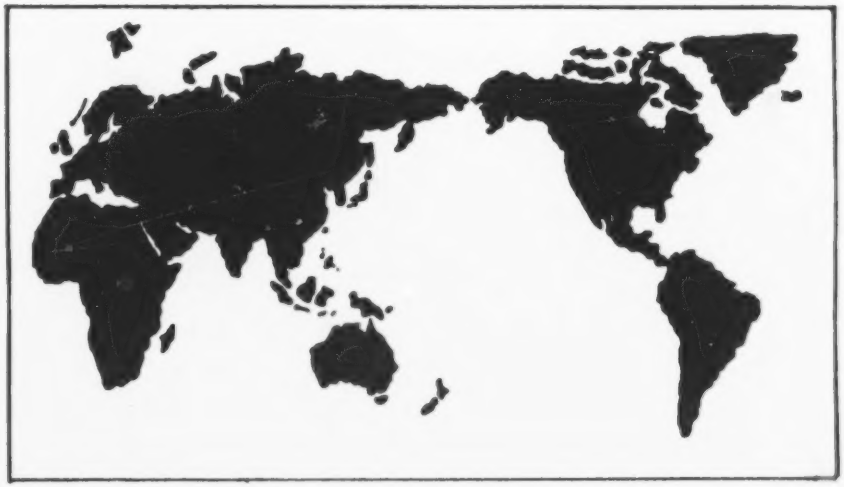
  Historical archaeology
  Naval archaeology
  Submarine archaeology
  Psychic archaeology
  Marine archaeology
  Prehistoric archaeology

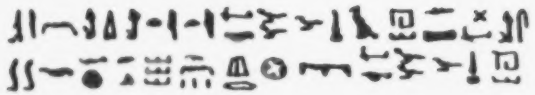
What are the likes and differences?

2. MAPS

By yourself or with a friend —

Draw a map of the world showing the sites of major archaeological finds.





Label the sites with illustrations of artifacts found there.

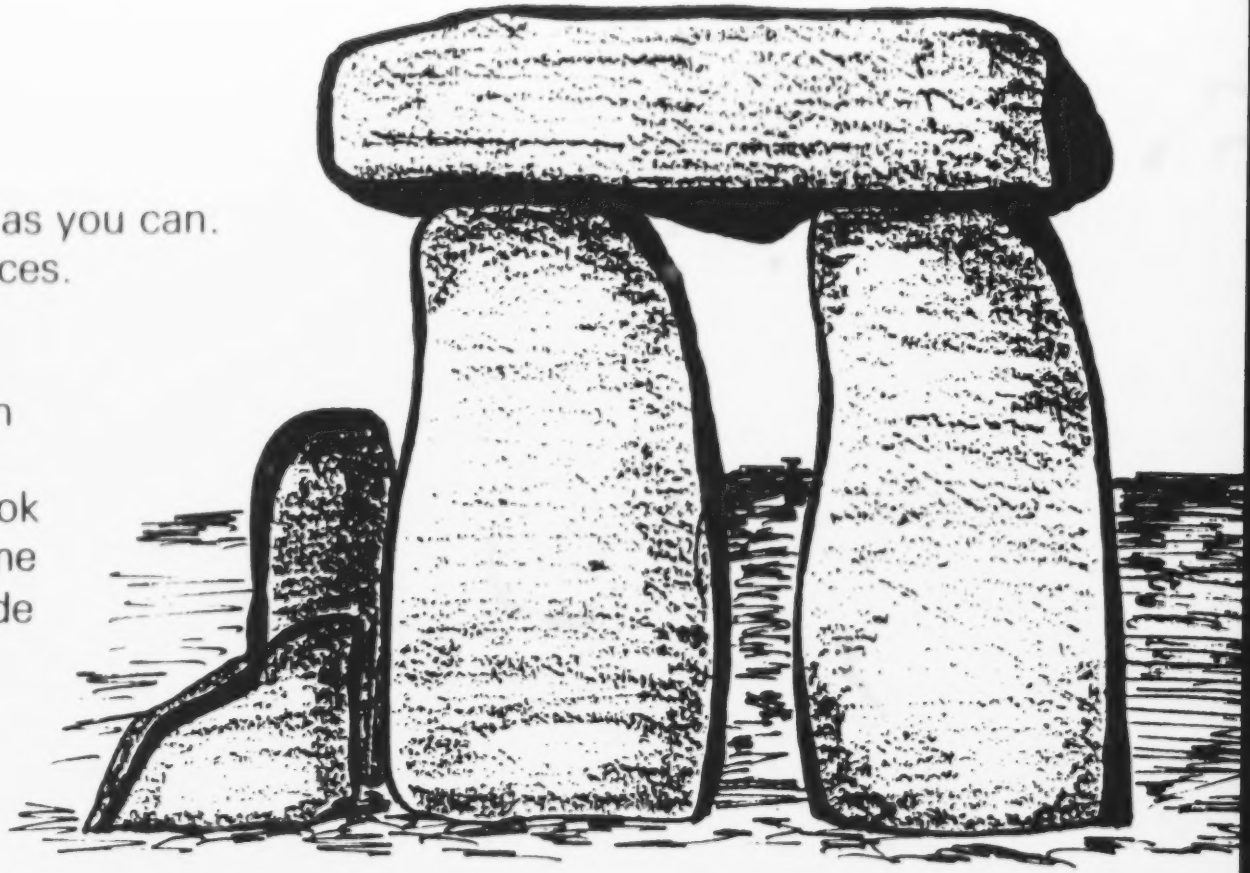
OR

Label each site with the archaeologist credited with the find and the year it was found.

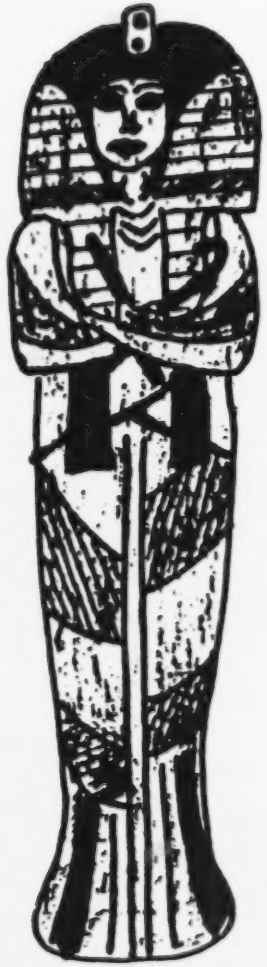
3. STONEHENGE

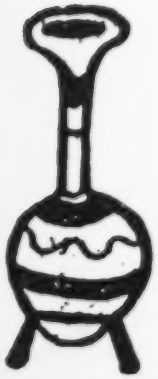
A number of legends exist about **Stonehenge**.
Locate and record as many as you can.
Use a minimum of five sources.

Create a legend of your own about Stonehenge.
Then present them all in book form, in a filmstrip or in some other way. Be sure to include *your* legend!



4. METHODS OF DATING





Carbon 14
Stratigraphy
Thermoluminescence
Fission-track
Pottery
Archaeomagnetism
Obsidian hydration

"Varve" calendars
Progressive weathering
Dendrochronology
Archaeomagnetic tests
Potassium-argon
Pollen sequence
Paleomagnetism

Research several methods of dating. Study the limitations and benefits of each one.

Show your findings in a filmstrip, chart, or a way of your own choosing.

5. IMAGINATIVE WRITING

Choose One (at least)

- IMAGINE that you are a well-known archaeologist; e.g., Edward H. Thompson, Sir Arthur Evans, Howard Carter, etc....DESCRIBE your dreams and expectations before, during and after the famous find...in a story, a diary, or a play.

- WRITE an article about a specific civilization for an archaeological journal.

  Present your findings, draw conclusions, and cite your references. Use at least 10 imaginative and descriptive words.

- IMAGINE that you are the ruler of an ancient city. Keep a journal for at least two weeks, recording the activities of your day.

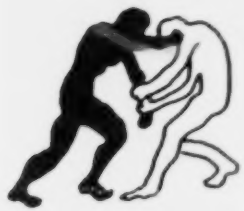
- IMAGINE that you are digging in your yard. Your shovel hits something hard...You assume it is a rock ...Then you realize it is something unlike anything you've ever known before. As you feverishly probe, you can begin to see your treasure more clearly...

  Complete the story...Is it a rare archaeological find? ...A missing link in a partially-solved mystery?...

  Write the story first; then you might want to tape it ...(remember to use sound effects).

6. ANCIENT GAMES

Evidence of sporting events has been noted in excavations of a number of ancient civilizations. Often these appear to be the beginnings of sports still popular today. **Locate** as many of these as you can.



Present your findings by:

- **Making a tape** of sports events of one or more ancient civilizations. (Be sure to describe the audience and to use sound effects.)

OR

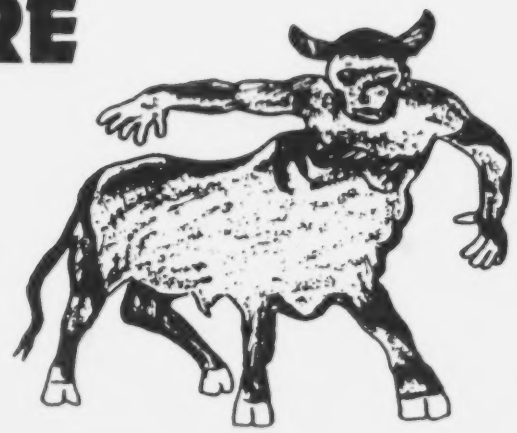
- **Imagining** that you are the coach or a leading player. Write a story telling about the event from your point of view.

7. JUST FOR FUN

Find out about the Irish Potato. Imagine that you *are* one. Write a story about your beginnings... Where (in what country) you were first farmed and when...How and when you were noticed by the Europeans...and what has been your importance to mankind.

(Feel free to make it humorous!)

8. CONTRAST & COMPARE



- **Make** a collection of legends of archaeological finds; e.g.

the Sun legend of
Machu Picchu
or
the Minotaur of Crete

Notice the parts of each legend that are now accepted as fact . . . and the parts that are not.

OR

- **Contrast and compare** the religions of two ancient civilizations. If you could choose, in which culture would you prefer to live?

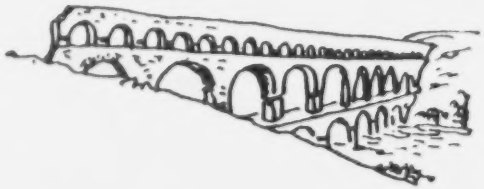
9. VOCABULARY

Find the meanings of the following terms:

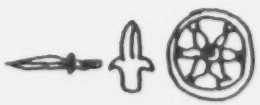
Absolute Dating
Archaeology
Artifact
B.P.
Cairn
Carbon 14
Contact Period
Datum Point
Dendrochronology
Dig
Epigraphy
Excavation
Flotation
Geochronology
Grafito
Hieroglyph
In Situ
National Register
Paleobotany
Paleontology
Seriation
Stratigraphy
Tell

10. STUDY-QUESTION-LEARN

- Many theories exist about the decline of Maya. **Find out** about several and make your own hypothesis based on what you know of the land and its culture.



- **What** are the enemies of the archaeologist?



- In 1900, Sir Athur Evans, an English archaeologist, made a discovery that "rewrote" the history books.

What implications for the study of Greek civilization can be made by Sir Arthur's famous discovery?

- **What** factors favor the preservation of ships wrecked in deep water?

- **What** unusual find — 10,000 years old — was located in an underwater site in Warm Mineral Springs, Florida?

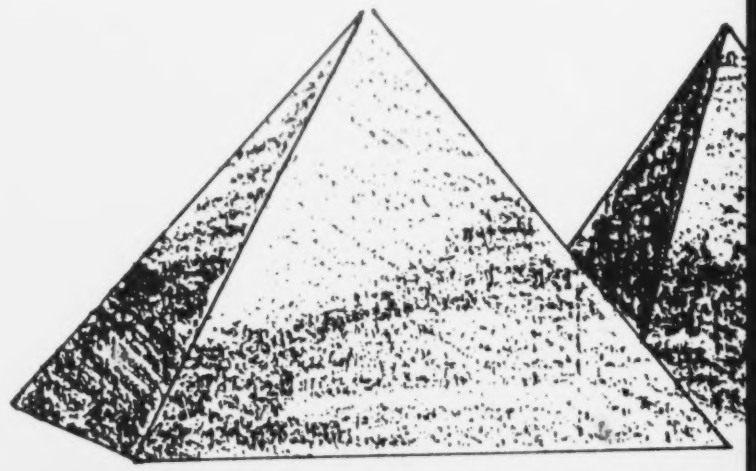
11. GRAPH YOUR RESULTS

Prepare a list of 5-10 well-known archaeological digging sites. Put together a set of questions about each site. Then, ask at least 20 persons the questions you have compiled. Record the results of your survey on the chart below. Do most people know a lot or very little about archaeological discoveries? Why do you think it is important for people to gain more knowledge about these finds?

12. ART~CRAFTS~BUILDING

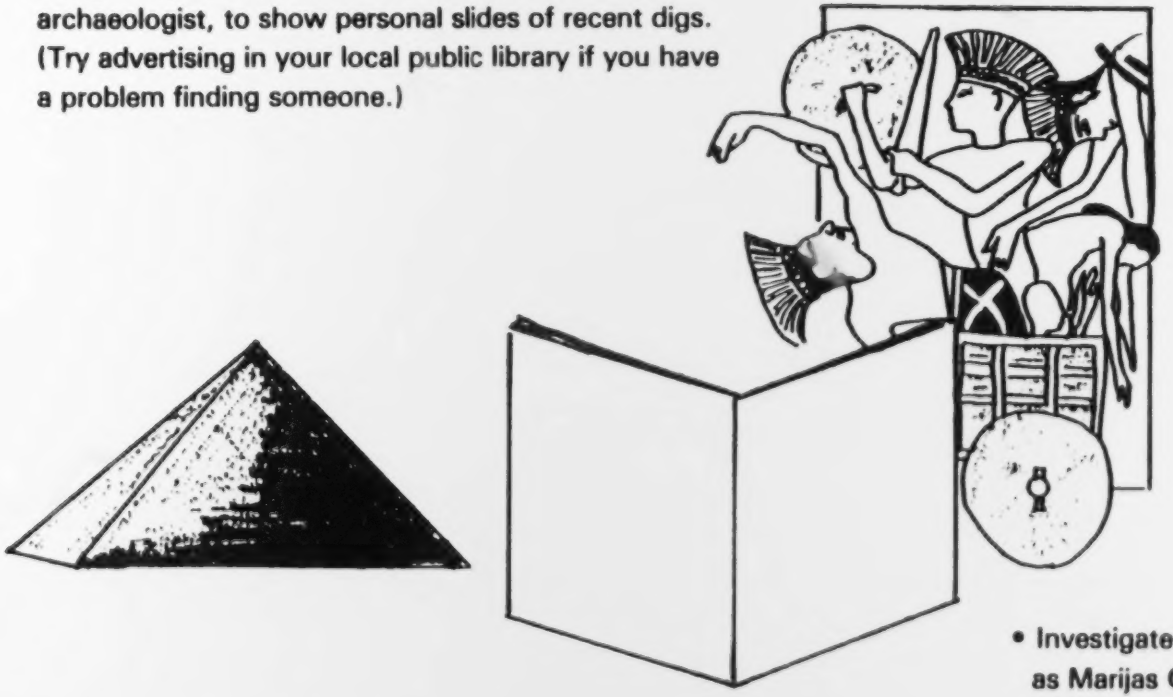
— Choose One or More —

- **Design** a mural of Atlantis.
- **Build** a model of a pyramid. From what country is it?
- **Prepare** a display of pictures of artifacts found in a well-known dig. Label them.
- **Make** a diorama of a scene at the time of your favorite ancient civilization. Be authentic!
- **Build** a replica of pottery found in a specific dig. Duplicate the shape, size, color and design.
- **Make** a chart showing tools of the archaeologist. Label each tool with its name and specific use.
- **Display** some of the world's most famous artifacts by making: papier mache models, charts, or a project cube.



13. INTEREST OTHERS

- Bring in a parent or friend of the school, or a local archaeologist, to show personal slides of recent digs. (Try advertising in your local public library if you have a problem finding someone.)



- Locate some eye-catching books about archaeology and some artifacts, if possible. Put them all together as a display to interest students in the exciting field of archaeology.

- Research, order and show to your class some of the outstanding archaeological films.
  Get recommendations from the archaeology or anthropology department of your local college.

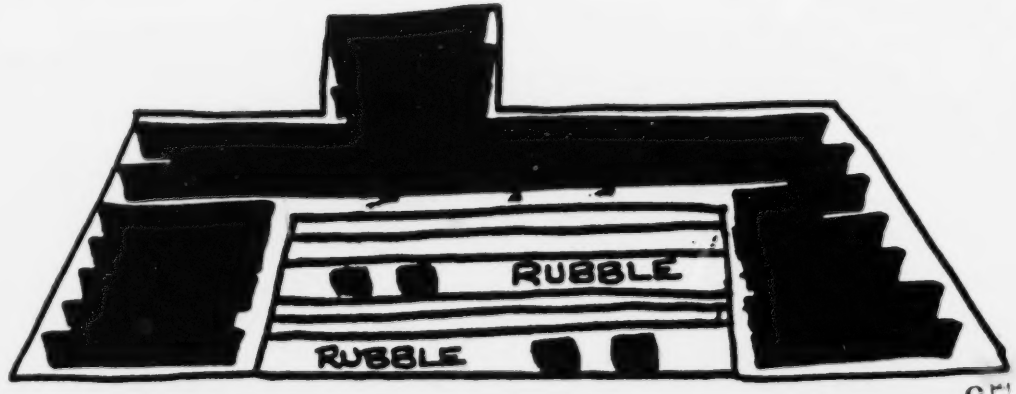
- Investigate a contemporary archaeologist, such as Marijas Gimbutas, Ernestine S. Elster or James Deetz. Study his or her life...childhood, interests, schooling, archaeological research.
  Prepare a chart or bulletin board for the library or a classroom.

14. OTHER SOURCES

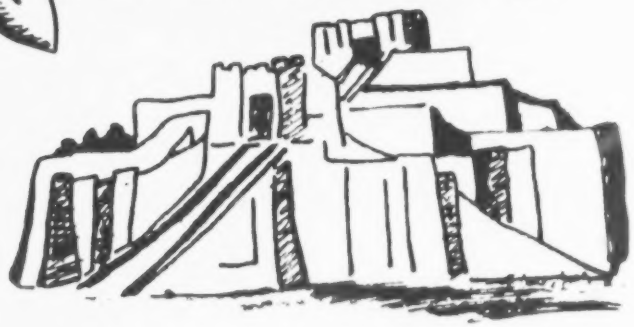
- **Look through** archaeological journals of listings of museums. Visit any you can. Bring back a report.

- **Go** through your town records. Find the location of a site where a building once stood (preferably several years back). Get permission to set up a dig on this site.

- **Research** the cranial capacity from early man until the present. What relationships do you find to the tools, weapons and cave paintings of that time? Present your findings.



15. THE DIG



With your friends, divide into two teams.

Each team should create a culture complete with a history, religion, leaders, life-style and traditions.

THEN...

Prepare some artifacts from this culture and bury them. (This might take several weeks of planning and organization.) Be sure to keep this all a secret from the other team.

NOW...FOR YOUR ARCHAEOLOGICAL DIG!

Each team will excavate the other team's site. Now the detective work begins...Based on the artifacts you discover, find out all you can about the other teams's culture.

68

16. CAREERS

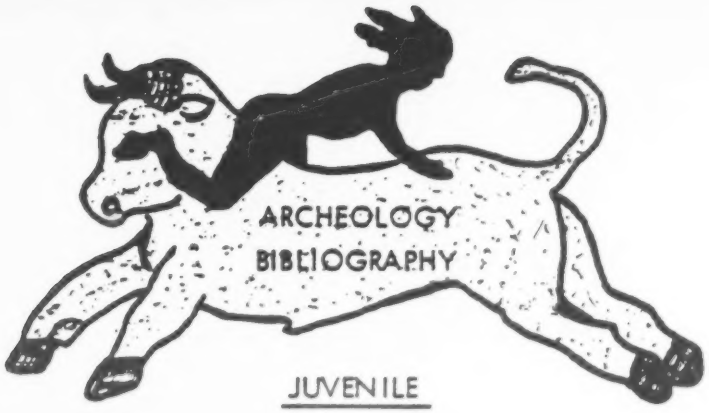
- Are you interested in learning more about archaeology? Most states have an **archaeological society.** Contact them. You might be welcome to accompany them on a dig.

- **Find out** about some national archaeological organizations. Your librarian can help you get started. You might want to become a member of one.

- **Write** for a copy of **"Fieldwork Opportunities Bulletin".** This contains a list of names and addresses of colleges and universities with field-school programs. The address is:
  Archaeological Institute of America
  53 Park Place
  New York, New York 10007.
  (The cost is $3.50)

- Persons from 16 to 75 can work as research assistants for an archaeological organization named **"Earthwatch"**. If you are interested, write to:
  Earthwatch
  10 Juniper Road, Box 127
  Belmont, MA 02178

- **Junior and senior high school students** can attend Kampsville Archaeological Center, an archaeological field school. Contact:
  Carleton-Washborne School
  515 Hibbard Road
  Winnetka, Illinois 60093.
  This field school is offered by Northwestern University.



JUVENILE

Bacon, Edward	DIGGING FOR HISTORY, ARCHAEOLOGICAL DISCOVERIES THROUGHOUT THE WORLD, 1945 to 1959
Baldwin, Gordon C.	CALENDARS TO THE PAST
Cairns, Trevor	PEOPLE BECOME CIVILIZED
Casson, Lionel	ANCIENT EGYPT
Daugherty, Charles M.	THE GREAT ARCHAEOLOGISTS
Fagan, Brian M.	QUEST FOR THE PAST
Freeman, Mae Blacker	FINDING OUT ABOUT THE PAST
Friedman, Estelle	DIGGING INTO YESTERDAY
Hall, Jennie	BURIED CITIES
Leonard, Jonathon Norton	ANCIENT AMERICA
Pfeiffer, John E.	THE SEARCH FOR EARLY MAN
Shippen, Katherine B.	PORTALS TO THE PAST
Suggs, Robert C.	MODERN DISCOVERIES IN ARCHAEOLOGY
Watts, Edith Whitney	ARCHAEOLOGY: EXPLORING THE PAST
White, Anne Terry	ALL ABOUT ARCHAEOLOGY

ADULT

Bass, George F.	ARCHAEOLOGY UNDER WATER
Braidwood, Robert J.	ARCHEOLOGISTS AND WHAT THEY DO
	PREHISTORIC MAN
Brodrick, A. Houghton	ANIMALS IN ARCHAEOLOGY
Dempewolff, Richard F.	LOST CITIES AND FORGOTTEN TRIBES
Marx, Robert F.	THE UNDERWATER DIG
Megaw, Vincent	THE DAWN OF MAN
Sullivan, George	DISCOVER ARCHAEOLOGY

JOURNALS WITH ARCHEOLOGICAL REFERENCES

EARLY MAN
GEOGRAPHICAL MAGAZINE
NATIONAL GEOGRAPHIC
SCIENCE 80 (81, 82....as issued)
SCIENTIFIC AMERICAN

Exploring The Arts

an opportunity to integrate art experiences within an academic content area.

by
Stephany Grassinger

While each component . . . the self-directed learning unit and Exploring the Arts . . . is a complete and valid learning experience in itself, together they provide a more comprehensive and lasting educational experience for the learner.

ARCHAEOLOGY

TREASURES OF MYCENAE

RECALL the treasures of Mycenae.

Who found them?

When were they found?

What precious metal was used?

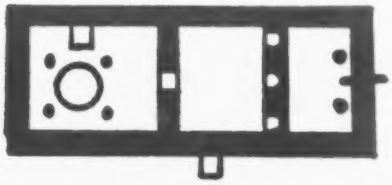
Design a treasure of your own:

a sword

a chalice

a box

a mask



Construct your treasure with papier-mache or clay; paint and decorate it with shells, stones, costume jewels, etc.

LION GATE

READ about the Lion Gate.

Design a sculpture for the entrance to your city. What animal would represent your area of the country?

List the characteristics you would like a visitor to know about your city.

(The Lion Gate continued...)

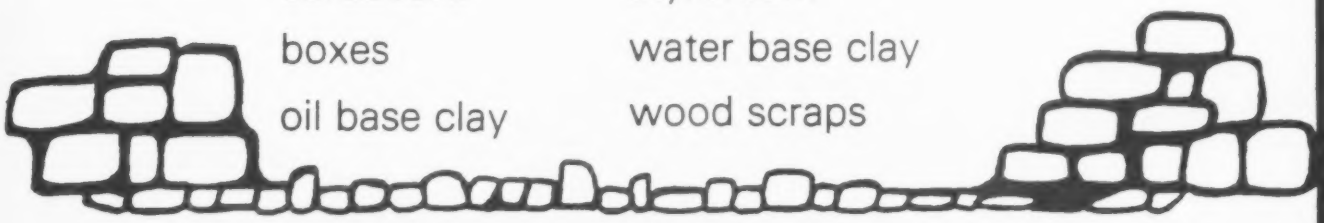
Include characteristics that would be of special interest to an archaeologist.

Design your sculpture to visually express these ideas.

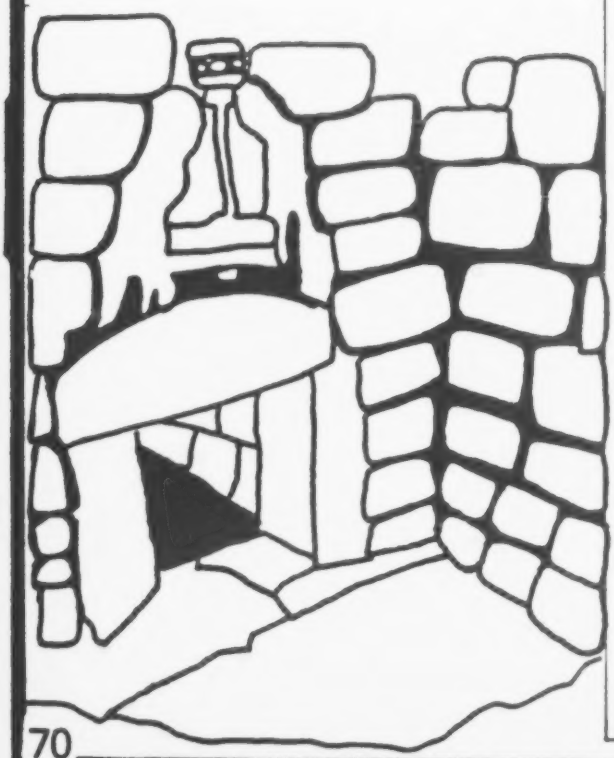
Produce some sketches of your city's entrance from different views — front, top, sides, back.

Determine the materials you wish to use. Some suggestions are:

cardboard	styrofoam
boxes	water base clay
oil base clay	wood scraps



Construct and display your sculpture.



SUPPLIES

Make a list of the supplies you need to make your sculpture:

_____

_____

_____

_____

_____

_____

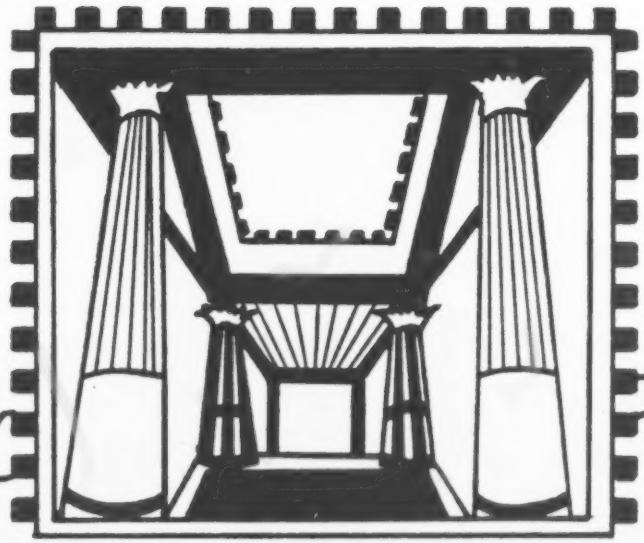
_____

POMPEII

Where was Pompeii located?

How was it destroyed?

Why was Pompeii preserved so well?



Archaeologists learn a great deal about a society from its paintings. The paintings found in Pompeii told archaeologists many things about daily life there.

Create a painting that tells about your daily life. Have some classmate "archaeologists" tell you what they discovered about you by studying your painting.

List their discoveries.

Did you communicate effectively through your work?

MAYANS

READ about the Mayans.

List at least 4 of the Mayan accomplishments.

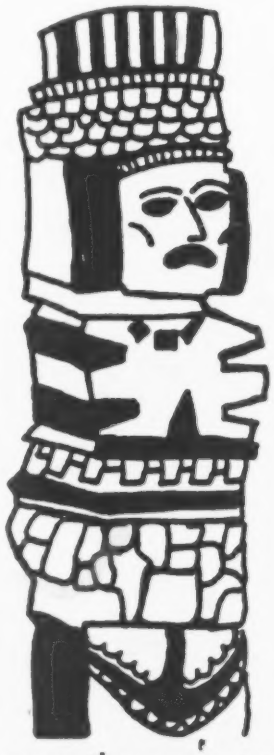
TOLTECS

TRACE the Toltec culture.

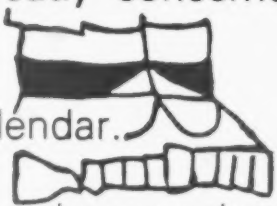
Who were they?

Why are they called the "Master Builders"?

When do archaeologists believe the Toltecs existed?



The Middle American peoples seemed to be greatly concerned with the passage of time.



Find an example of a Mayan or Aztec calendar.

Invent a new calendar for one year. Instead of using numbers, design new symbols to represent the passage of time. Consider making the calendar in an unusual shape.

MINOANS

Learn about Sir Arthur Evan's work on the island of Crete.

Why are the people of Crete called the Minoans?

Read about the Minoan periods of:

2600-2000 B.C.
2000-1550 B.C.
1550-1150 B.C.

Find an example of art from each period. Illustrate each example. Then **contrast and compare** the artistic characteristics of each.

Consider: materials
size
shapes and forms
attention to detail
surface treatment
function
simplicity and complexity